

# Attachment A

## **Examiner's Amendments to the specification:**

Applicants consent to the following amendment by the examiner to the originally-filed specification at the paragraph beginning at line 11 of page 5:

Figure 20 illustrates an embodiment of the invention tangibly embodied in a computer program residing on a computer-readable medium ~~or carrier~~.

Applicants also consent to the following amendment by the examiner to the originally-filed specification at the paragraph beginning at line 13 of page 16:

The invention may be tangibly embodied in a computer program residing on a computer-readable medium ~~or carrier~~, such as the floppy disc 2105 or hard drive 2101 shown in Figure 20. The medium 2105 may comprise one or more of a fixed and/or removable data storage device, such as a floppy disk or a CD-ROM, or it may consist of some other type of data storage ~~or data communications device~~. The computer program may be loaded into the memory 2102 of a network manager computer device 2110 for execution. The computer device 2110 may be connected to a network via network interface 2103. The computer program comprises instructions which, when read and executed by the computer device 2110, causes the computer device 2110 to perform the steps necessary to execute the steps or elements of the present invention.

**Examiner's Amendments to the claims**

Applicants also consent to the following amendments by the examiner to the claims:

22. (Examiner's amendment) The method of claim 21, wherein determining or revising the transmit probability comprises defining the transmit probability as a transmit fraction  $T_i$  as a function of a data flow parameter  $f_i$  and a service rate  $S$  of the network system by applying a bandwidth allocation transmit algorithm comprising;

determining if the hysteresis flag is ON or OFF;

if the flag is ON, incrementing or decrementing  $T_i$  by:

if  $f_i(t) \leq f_{i,min}$ , then  $T_i(t + dt) = \min(1, T_i(t) + w)$ ;

if  $f_i(t) > f_{i,max}$ , then  $T_i(t + dt) = T_i(t)(1-w)$ ;

if an excess bandwidth signal  $B(t) = 1$ , then  $T_i(t + dt) = \min(1,$

$T_i(t) + C_i B_{avg}(t))$ ; or

else,  $T_i(t + dt) = T_i(t)(1 - D_i O_i(t))$ ;

where  $O_i(t)$  is a current offered rate of the flow and  $C_i$  is an increment

constant equal to  $(S + f_{1,min} - (f_{1,min} + f_{2,min} + \dots + f_{n,min}))/16$ , and  $D_i$  is

a decrement constant equal to  $(S - f_{i,min}) * 4$ , or

if the hysteresis flag is OFF, incrementing or decrementing  $T_i$  by:

if the queue level is increasing, setting  $T_i = F(C_i)$ , wherein  $F(C_i)$  is a bandwidth allocation transmit decreasing function; or

if the queue level is decreasing, setting  $T_i = G(D_i)$ , wherein  $G(D_i)$  is a bandwidth allocation transmit increasing function.

27. (Examiner's amendment) The data flow manager of claim 26 further configured to determine or revise the transmit probability by defining the transmit probability as a transmit fraction  $T_i$  as a function of a data flow parameter  $f_i$  and a service rate  $S$  of the network system by applying a bandwidth allocation transmit algorithm by:

determining if the hysteresis flag is ON or OFF;

if the flag is ON, incrementing or decrementing  $T_i$  by:

if  $f_i(t) \leq f_{i,min}$ , then  $T_i(t + dt) = \min(1, T_i(t) + w)$ ;

if  $f_i(t) > f_{i,max}$ , then  $T_i(t + dt) = T_i(t)(1-w)$ ;

if an excess bandwidth signal  $B(t) = 1$ , then  $T_i(t + dt) = \min(1,$

$T_i(t) + C_i B_{avg}(t)$ ); or

else,  $T_i(t + dt) = T_i(t)(1 - D_i O_i(t))$ ;

where  $O_i(t)$  is a current offered rate of the flow and  $C_i$  is an increment

constant equal to  $(S + f_{1,min} - f_{1,min} + f_{2,min}$

$+ \dots + f_{n,min})/16$ ; and  $D_i$  is a decrement constant equal to  $(S - f_{i,min}) * 4$ ;

or

if the hysteresis flag is OFF, incrementing or decrementing  $T_i$  by:

if the queue level is increasing, then setting  $T_i = F(C_i)$ , wherein  $F(C_i)$  is a bandwidth allocation transmit decreasing function; or

if the queue level is decreasing, then setting  $T_i = G(D_i)$ , wherein  $G(D_i)$  is a bandwidth allocation transmit increasing function.

32. (Examiner's amendment) The article of manufacture of claim 31, wherein the computer readable program, when executed on a computer, further causes the computer to manage network data flow by:

determining or revising the transmit probability by defining the transmit probability as a transmit fraction  $T_i$  as a function of a data flow parameter  $f_i$  and a service rate  $S$  of the network system by applying a bandwidth allocation transmit algorithm comprising;

determining if the hysteresis flag is ON or OFF;

if the flag is ON, incrementing or decrementing  $T_i$  by:

if  $f_i(t) \leq f_{i,min}$ , then  $T_i(t + dt) = \min(1, T_i(t) + w)$ ;

if  $f_i(t) > f_{i,max}$ , then  $T_i(t + dt) = T_i(t)(1-w)$ ;

if an excess bandwidth signal  $B(t) = 1$ , then  $T_i(t + dt) = \min(1,$

$T_i(t) + C_i B_{avg}(t))$ ; or

else,  $T_i(t + dt) = T_i(t)(1 - D_i O_i(t))$ ;

where  $O_i(t)$  is a current offered rate of the flow and  $C_i$  is an increment

constant equal to  $(S + f_{1,min} - (f_{1,min} + f_{2,min}$

$+ \dots + f_{n,min})) / 16$ ; and  $D_i$  is a decrement constant equal to  $(S - f_{i,min}) * 4$ ;

or

if the hysteresis flag is OFF, incrementing or decrementing  $T_i$  by:

if the queue level is increasing, setting  $T_i = F(C_i)$ , wherein  $F(C_i)$  is a bandwidth allocation transmit decreasing function; or

if the queue level is decreasing, setting  $T_i = G(D_i)$ , wherein  $G(D_i)$  is a bandwidth allocation transmit increasing function.

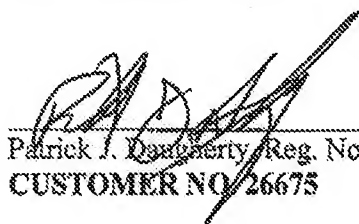
**REMARKS**

With the understanding that the present Examiner's amendments place the application in condition for allowance, applicants consent to the entry of the Examiner's amendments indicated herein.

Respectfully submitted,

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Patrick J. Daugherty Reg. No. 41,697  
CUSTOMER NO. 26675